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Summary for 1939

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EUROPEAN CORN BORER

The seasonal occurrence of the European corn borer in 1939 was about average over the range of its distribution in the United States, a partial second generation developing in the Lake States, two generations in New England, a small partial third generation in New Jersey, and three generations on the Eastern Shore of Virginia. First oviposition records for selected localities were as follows: Toledo, Ohio, June 6; Waltham, Mass., June 5; New Haven, Conn., May 29; Moorestown, N. J., May 25; Onley, Va., May 10.

In addition to the previous known distribution of the insect observations principally by State personnel provided records of corn borer occurrence in 1939 in the following counties: Dodge, Green Lake, Jefferson, Oconto, Outagamie, Shawano, and Waupaca in Wisconsin; Cook, Du Page, Kankakee, Lake, and Will in Illinois; Chester, Delaware, Lancaster, and Montgomery in Pennsylvania; Kent and New Castle in Delaware; Lancaster, Nansemond, and Richmond in Virginia; and Camden, Currituck, and Pasquotank in North Carolina. The Illinois and North Carolina infestations are the first records of occurrence of the corn borer in these States.

The greater portion of the known area of corn borer infestation was included in the annual fall survey of abundance in 1939, conducted by the Bureau in cooperation with various interested States, although comparisons of populations between 1938 and 1939 are restricted to districts also surveyed in the former year. In these districts, a general increase occurred in Indiana, while marked decreases occurred in Connecticut and New Jersey. In Connecticut, however, first-generation oviposition and infestation were particularly heavy, the factors contributing to the decrease in the fall population having been expressed after the completion of the first generation. The remaining districts for which comparable data are available carried similar populations for the 2 years, minor increases and decreases appearing scattered over the territory. Except for critical areas in eastern Michigan, in Ohio extending southwest of Lake Erie, and in the Eastern States extending from Massachusetts to New Jersey, borer populations in general averaged less than 100 borers per 100 plants. The greatest abundance was found in southern New England, where 5 counties in eastern Massachusetts, 2 in central and 2 in eastern Connecticut, and 4 in Rhode Island averaged over 500 borers per 100 plants, and in the tip of the "thumb" section of Michigan, where 1 county had a population of 595 borers per 100 plants. Selected fields in New Jersey continued to carry heavy borer concentrations with averages of 16 to 40 borers per plant.



Corn borer infestation in early market sweet corn in 1939 was most severe in New Haven County, Conn., where half of the fields surveyed averaged 20 or more borers per plant, and in Ulster County, N. Y., where half of the fields averaged 10 or more borers per plant. In New Haven County the average number of borers per plant was 19.8 and in Ulster County 12.6. The greatest increase of the pest in sweet corn occurred in Burlington County, N. J., where an average of 0.5 borer per plant in 1938 changed to 4.2 borers in 1939. Less than half as many borers infested the crop in Lucas County, Ohio, in 1939, when the average number per plant was 8.2, as in 1938, when it was 17.5. The heaviest population in early market sweet corn in any of the 4 counties surveyed in southwestern Maine in 1939 was in York County, where there were 125 borers per 100 plants.

The borer was less abundant in 1939 than in 1938 in white potatoes grown in central Connecticut and Massachusetts. Observations in 47 dahlia plantings in New Jersey, Long Island, and the lower Hudson River Valley showed 2 plantings, both in New Jersey, to be heavily infested, 4 with medium, 10 with light, and 12 with negligible infestations, the remaining 19 fields having no infestation. The corn borer is just becoming evident to growers of large plantings for commercial cut flowers in southern New Jersey and, while the damage in 1939 was found to be negligible in most cases, the pest could be found in most of the plantings in which it was not observed in previous years.

Extremes in moisture conditions characterized the summer of 1939 in practically all sections infested by the borer, whereas fluctuations in temperature were, in general, less pronounced. April was the fourth consecutive wet month in New Jersey and was also wet farther south along the Atlantic coast. The month of May was generally dry from Indiana east to the New England coast and south through New Jersey to the Eastern Shore of Virginia. June precipitation was excessive in Ohio, Michigan, and Indiana, while in the more eastern States it ranged from slightly above to slightly below normal. Although moisture conditions in July were about normal in Ohio, Michigan, and Indiana, the weather that month in New York State and east through most of New England and New Jersey developed into a serious drought. In New York dry weather continued into August and in Ohio that month was one of the driest Augusts on record. August was a month of excessive rainfall in New Jersey and New England.